

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Chicago 2417 Bond Street University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-91158-1

Client Project/Site: Ponds and Process Tanks

For:

Central Wire (Techalloy) 6509 Olson Road Union, Illinois 60180

Attn: Robert Johnson

Authorized for release by:

Authorized for release by 1/29/2015 3:41:04 PM

Sandie Fredrick, Project Manager II (920)261-1660

sandie.fredrick@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Central Wire (Techalloy)
Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-91158-1

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	
Client Sample Results	5
Lab Chronicle	7
Certification Summary	9
Method Summary	10
Sample Summary	11
Chain of Custody	12
Receipt Checklists	13

Definitions/Glossary

Client: Central Wire (Techalloy)

TestAmerica Job ID: 500-91158-1 Project/Site: Ponds and Process Tanks

Qualifiers

General Chemistry

Qualifier **Qualifier Description**

HF Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CFL Contains Free Liquid CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit

MDC Minimum detectable concentration

MDL Method Detection Limit ML Minimum Level (Dioxin)

Not Calculated NC

Not detected at the reporting limit (or MDL or EDL if shown) ND

PQL Practical Quantitation Limit

QC Quality Control Relative error ratio RER

RLReporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points RPD

TEF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-91158-1

Job ID: 500-91158-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-91158-1

Comments

No additional comments.

Receipt

The samples were received on 1/22/2015 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

The temperature of the cooler at receipt was 1.3° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

TestAmerica Chicago 1/29/2015

Client Sample Results

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-91158-1

Lab Sample ID: 500-91158-1 Client Sample ID: P&T Effluent Date Collected: 01/21/15 11:50

Matrix: Ground Water

Date Received: 01/22/15 09:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.5		1.0	0.20	ug/L			01/28/15 19:50	1
Tetrachloroethene	<0.17		1.0	0.17	ug/L			01/28/15 19:50	1
Trichloroethene	1.4		0.50	0.19	ug/L			01/28/15 19:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91	***************************************	75 - 125					01/28/15 19:50	1
4-Bromofluorobenzene (Surr)	91		75 - 120					01/28/15 19:50	1
Dibromofluoromethane	89		75 - 120					01/28/15 19:50	1
Toluene-d8 (Surr)	88		75 - 120					01/28/15 19:50	1

General Chemistry Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 8.19 HF 0.200 0.200 SU 01/22/15 13:27 рΗ

Client Sample ID: North Pond Lab Sample ID: 500-91158-2 Matrix: Ground Water

Date Collected: 01/21/15 11:30

Date Received: 01/22/15 09:45

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	660	100	26	ug/L		01/22/15 15:58	01/28/15 10:39	1
Lead	2.2	0.50	0.14	ug/L		01/22/15 15:58	01/27/15 15:32	1
Manganese	41	2.5	0.99	ug/L		01/28/15 15:00	01/29/15 10:09	1
Nickel	150	2.0	0.53	ug/L		01/22/15 15:58	01/27/15 15:32	1
Selenium	<0.83	2.5	0.83	ug/L		01/22/15 15:58	01/27/15 15:32	1

General Chemisury									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	2.5		0.20	0.090	mg/L	 		01/26/15 13:26	2
pH	7.93	HF	0.200	0.200	SU			01/22/15 13:35	1

Client Sample ID: South Pond Lab Sample ID: 500-91158-3

Date Collected: 01/21/15 11:40

Date Received: 01/22/15 09:45

Analyte	Result Qu	ıalifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1200	100	26	ug/L		01/22/15 15:58	01/28/15 10:44	1
Lead	4.7	0.50	0.14	ug/L		01/22/15 15:58	01/27/15 15:35	1
Manganese	35	2.5	0.99	ug/L		01/28/15 15:00	01/29/15 10:22	1
Nickel	84	2.0	0.53	ug/L		01/22/15 15:58	01/27/15 15:35	1
Selenium	<0.83	2.5	0.83	ug/L		01/22/15 15:58	01/27/15 15:35	1

General Chemistry										
Analyte	Result	Qualifier	RL	MDL	Unit	I	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	0.25		0.10	0.045	mg/L				01/26/15 12:34	1
рН	7.88	HF	0.200	0.200	SU				01/22/15 13:43	1

TestAmerica Chicago

Matrix: Ground Water

Client Sample Results

Client: Central Wire (Techalloy)

TestAmerica Job ID: 500-91158-1

Project/Site: Ponds and Process Tanks

Client Sample ID: Trip Blank Lab Sample ID: 500-91158-4

Date Collected: 01/21/15 12:40 Matrix: Water

Date Received: 01/22/15 09:45

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.20		1.0	0.20	ug/L			01/28/15 19:22	1
Tetrachloroethene	<0.17		1.0	0.17	ug/L			01/28/15 19:22	1
Trichloroethene	<0.19		0.50	0.19	ug/L			01/28/15 19:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		75 _ 125			=		01/28/15 19:22	1
4-Bromofluorobenzene (Surr)	90		75 _ 120					01/28/15 19:22	1
Dibromofluoromethane	91		75 _ 120					01/28/15 19:22	1
Toluene-d8 (Surr)	90		75 ₋ 120					01/28/15 19:22	1





Lab Chronicle

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-91158-1

Client Sample ID: P&T Effluent

Lab Sample ID: 500-91158-1 Date Collected: 01/21/15 11:50

Matrix: Ground Water

Date Received: 01/22/15 09:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	273884	01/28/15 19:50	DJD	TAL CHI
Total/NA	Analysis	SM 4500 H+ B		1	273268		SMO	TAL CHI
					(Start)	01/22/15 13:27		
					(End)	01/22/15 13:31		

Client Sample ID: North Pond Lab Sample ID: 500-91158-2

Date Collected: 01/21/15 11:30 Matrix: Ground Water

Date Received: 01/22/15 09:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			273275	01/22/15 15:58	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	273877	01/27/15 15:32	MJP	TAL CHI
Total Recoverable	Prep	3005A			273980	01/28/15 15:00	PJH	TAL CH
Total Recoverable	Analysis	6020A		1	274083	01/29/15 10:09	MJP	TAL CH
Total Recoverable	Prep	3005A			273275	01/22/15 15:58	PJH	TAL CH
Total Recoverable	Analysis	6020A		1	273954	01/28/15 10:39	MJP	TAL CH
Total/NA	Analysis	353.2		2	273626	01/26/15 13:26	AJR	TAL CHI
Total/NA	Analysis	SM 4500 H+ B		1	273268		SMO	TAL CHI
					(Start)	01/22/15 13:35		
					(End)	01/22/15 13:39		

Client Sample ID: South Pond

Lab Sample ID: 500-91158-3 Date Collected: 01/21/15 11:40 Matrix: Ground Water

Date Received: 01/22/15 09:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			273275	01/22/15 15:58	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	273877	01/27/15 15:35	MJP	TAL CHI
Total Recoverable	Prep	3005A			273980	01/28/15 15:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	274083	01/29/15 10:22	MJP	TAL CHI
Total Recoverable	Prep	3005A			273275	01/22/15 15:58	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	273954	01/28/15 10:44	MJP	TAL CHI
Total/NA	Analysis	353.2		1	273626	01/26/15 12:34	AJR	TAL CHI
Total/NA	Analysis	SM 4500 H+ B		1	273268		SMO	TAL CHI
					(Start)	01/22/15 13:43		
					(End)	01/22/15 13:47		

Client Sample ID: Trip Blank Lab Sample ID: 500-91158-4

Date Collected: 01/21/15 12:40 Matrix: Water

Date Received: 01/22/15 09:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B			273884	01/28/15 19:22	DJD	TAL CHI

TestAmerica Chicago

Lab Chronicle

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica Job ID: 500-91158-1

Certification Summary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-91158-1

Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	100201	04-30-15

7

Method Summary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-91158-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL CHI
SM 4500 H+ B	pH	SM	TAL CHI

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Central Wire (Techalloy)

Project/Site: Ponds and Process Tanks

TestAmerica Job ID: 500-91158-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-91158-1	P&T Effluent	Ground Water	01/21/15 11:50	01/22/15 09:45
500-91158-2	North Pond	Ground Water	01/21/15 11:30	01/22/15 09:45
500-91158-3	South Pond	Ground Water	01/21/15 11:40	01/22/15 09:45
500-91158-4	Trip Blank	Water	01/21/15 12:40	01/22/15 09:45

.....

Chicago

2417 Bond Street

Chain of Custody Record, 1st & 2nd Month of Quarter

Te	st	A	m	eri	ca

University Park, IL 60466 phone 708.534.5200 fax 708.534.5363																	_		7	[estAme	rica La	boratoi	ries. Tr	ac.
Client Contact	Project M	anager: Ro	bert Johnso	011		Site C	ontac	t: Ro	bert Jo	ohnsor	1		Date:	77	21	77,	5	***************************************		COC No:		34	- Andrew Militaire	***************************************
Central Wire Union Plant		Tel/Fax: 815,923,4919: 815,923,2126					Site Contact: Robert Johnson Lab Contact:							Carrier: UPS						1_ of1_ COCs				
6509 Olson Rd.		Analysis T	urnaround	Time	***************************************	İΤ	1	ПТ	T	ПΤ	T	Т	Т				T	П	J	ob No.		500		
Union, IL 60180		r (C) or Wo	ork Days (W)		11				1											91	10	- 0	,
(815) 923-2131 Phone	T	AT if different f	rom Below																		71	/ >	0	'
(815) 923-2126 Fax	\mathbf{x}	2	weeks				1,4	ω												****		**********	*************	***************************************
1st 2 mos. of qtr		1	week				jars)	(s) 1												1.35°	r:			İ
Union Plant			2 days			1 5 2 7	표	via										11		BA.	£			
PO#			l day			du (s)	(250 1	E												ننت	Æ	1		
						Filtered Samp VOCs (vials)	(2)	N + N (500 ml vials) 1, 3	ا ي										50	00-91158	coc			
	Sample	Sample	Sample		# of	Filtered !	Metals* (Z .	=	1									. 1					
Sample Identification	Date	Time	Туре	Matrix	Cont.		ž	z	효										_	S	ample S	pecific N	lotes:	
P&T Effluent	1/21	1150	G	GW	3	ΝХ																		
P&T pH	1/21	1150	G	GW	1	Ν			X															
North Pond	1/21	1130	G	GW	1	N	Х																	
North Pond	1/20	1130	G	GW	1	N		Х																
North Pond	1/21	1130	G	GW	1	N			X														ranawitasi i	
South Pond	1/20	11 40	G	GW	1	N	Х																	
South Pond	1/21	1190	G	GW	1	N		Х							\Box		\top	\sqcap					-thronousnes-bev	
South Pond	1/21	1140	G	GW	1	N	1		X	\Box							1	\Box						
	101					H	\top	T		\Box	\top	+		\top		\neg	\top	\Box	\Box					
Trip Blank	1/2-(1240			1	H	+			+ +	+	1	\vdash	+	T	$\neg \uparrow$	1	$\dagger \dagger$						
ттр ыатк	1	100			 -	H	+	H		+ +		+	\vdash	+		\dashv	\dashv	$\dagger \dagger$	\sqcap					
							+	\vdash	_	++	-	+	\vdash	_	+-	-		+	\Box					
D. J. J. J. J. A. HICL A YICCO. A HINGS C. N.	OH (0/1	1		1	<u> </u>	┺		╂╼┼		+			╀		+-+			+	\vdash					
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=Nat Possible Hazard Identification)H; 6= Otne	er	***********				amnl	o Die	nosa	I/AI	foo m	ay he	2000	2000	lifea	mole	oe are	rota	inoc	longer	thon 1	month)		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Non-Hazard Flammable Skin Irritant	Poison	$_{R}$	Unknown							Client				osal B					chive		mun 11	Month		
Special Instructions/QC Requirements & Comments:	1 0,000		Charonn					101011	-	0110116			270,0	2001 12		-		7 17 07	11110	, 0,				AAAAAAAAAAAAAA
North Pond Metals: Iron (Fe), Lead (Pb), Manganese (M South Pond Metals: Iron (Fe), Lead (Pb), Manganese (M	n), Nickel (l	Ni) & Seler	ium (Se)					_			Λ													
South Pond Metals: Iron (Fe), Lead (Pb), Manganese (M Rec Center Metals: EPA Method 6020A & pH - no pres	n), Nickel (I ervative	Ni) & Selen	ium (Se)					7			7,												1.	3
Relinquished by	Company:			Date/T	ime:	Re	geive	id by:		1	+			Со	mpan	y :	_			Date/Time) :		*************	Ontennes National
Relinquished by	Company:	1	······································	121	125	D.	eceive	Stebau		<u></u>	~& 	~~>		Co	mpan	<u></u>	4_		-	1/21/ Date/Time	15_	72:	7.0	
La Companied by 10	Company.	A		1-2	ime: -3	20	\$	AL UY		A)		•	٦	سابية.	٦	><	Š			1/1	3.5	20)
Relinquished by:	Company:			Date/T		Re	ocejwo	they:		1				Co	mpan	y: 72	12		寸	Date/Tiple	17	·	261	
						/	1		y	ST. SERVICE AND ADDRESS OF THE PARTY OF THE		,					1			01/2	2/16	2	074	9

Login Sample Receipt Checklist

Client: Central Wire (Techalloy)

Job Number: 500-91158-1

Login Number: 91158 List Source: TestAmerica Chicago

List Number: 1

Creator: Kelsey, Shawn M

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	